

## Alcimedea

An excellent review article on schizophrenia (*BMJ* 2007;335:91–5) should be of interest to those practising clinical forensic medicine. Schizophrenia is a serious mental illness and should be suspected in young adults presenting with unusual symptoms and altered behaviour. FPs may see detainees who present with bizarre behaviour and the most common symptoms are a lack of insight, auditory hallucinations and delusions. Delayed treatment can worsen the prognosis so early intervention is very important.

Forensic scientists are sometimes confronted with cellular material originating from an individual, often in trace quantities, that is mixed with cellular material from a different person. DNA profiling of such cellular mixtures will often either generate mixed DNA profiles that require complex statistical calculations or a profile that only represents the major contributor, when the need is to obtain DNA information on the minor contributor. A paper in *Forensic Science International* (2007;173:93–6) demonstrates that microlaser dissection systems can improve the chance of obtaining informative, single-source DNA profiles from somatic cellular mixtures (in this case blood and saliva). Microlaser dissection systems permit the identification and isolation of tissue sections and single cells, as well as sub-cellular components, and are already used by forensic scientists to isolate sperm from vaginal cell mixtures. This paper suggests that the technique can be successfully applied to other mixed cellular material.

The *Lancet* has published a pivotal piece of research on cannabis use and the risk of psychosis in later life (2007;370:319–28). The authors conclude that the risk of psychosis is increased by roughly 40% in people who have used cannabis and there is a dose-response effect leading to an increased risk of 50–200% in the most frequent users. They suggest that there is now sufficient evidence to warn young people that using cannabis could increase their risk of developing a psychotic illness later in life.

The most recent annual report on drug related deaths in the UK published by the National Programme on Substance Abuse Deaths (np-SAD) (ICDD, St George's Uni-

versity of London, 2007 email: [npsad@SGUL.ac.uk](mailto:npsad@SGUL.ac.uk)) has included a section looking more closely at the nature extent and pattern of cannabis-related mortality. They conclude that cannabis is a hazardous drug – especially in terms of morbidity but also in relation to mortality associated with its use. Although relatively rarely implicated in death, cannabis-related deaths do occur.

An evaluation of a transdermal formulation of buprenorphine – ‘buprenorphine patch’ – changed every three days has been published (*Addiction* 2007;102:1648–56). Sub-lingual buprenorphine is relatively safe and effective but there is a risk of diversion to illicit use and daily sublingual buprenorphine produces a ‘saw-tooth’ pattern of rising and falling blood concentrations over time. With the ‘patch’ there may be less likelihood of diversion to illicit drug usage and improved pharmacodynamic efficacy.

A lesson of the week article (*BMJ* 2007;335:992–3) highlights the dangers associated with the increasing misuse of alcohol amongst women by describing three cases of idiopathic rupture of the bladder. Bladder rupture is usually associated with pelvic trauma. However, with trauma and other causes excluded from the history, such as diabetes and neuropathic bladder, the authors suggest that diuresis and the dulling effects of alcohol without the relief of bladder voiding were the cause of the rupture in these cases. Alcohol consumption increases the volume of urine within the bladder and dulls the senses such that the patient has a reduced urge to void despite increased bladder volume. Presenting symptoms are usually vague although there may be suprapubic pain with tenderness and evidence of mild shock.

Two papers and an editorial on rapid tranquilization in emergency psychiatric settings have been published in the *BMJ* (335:835–36, 865–69, 869–72). The editorial discusses the National Institute for Health and Clinical Excellence guideline, which describes a hierarchy of interventions for emergency management of violent patients with the parenteral tranquilisation with anti-psychotic drugs a last resort. The two studies compared the use of parenteral anti-psychotics with and without promethazine. The use of pro-

methazine reduced the incidence of dystonia, an important adverse effect of parenteral anti-psychotics.

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Paramedics are working as appropriately trained health care professionals in the police custodial environment in the UK. A recent evaluation (*BMJ* 2007;335:919–22) of the benefits of paramedic practitioners assessing and, when possible, treating older people (over 60) in the community after minor injury or illness has shown that they can provide a clinically effective alternative to standard ambulance transfer and treatment in emergency department. However although these results are positive, they cannot be generalised beyond the schemes evaluated and an editorial in the same edition of the *BMJ* (335:893–4) advised that further

trials should be conducted to evaluate current emergency care practitioner schemes before further costly expansions occur.

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A comparison of the blood toxicology of heroin overdose cases and morphine positive homicide victims has shown that morphine concentrations per se are not diagnostic of overdose (*Addiction* 2007;102:1793–97). The role of alcohol was a key feature, with the overdose cases more than three times more likely to have alcohol detected, illustrating the increased risk of a heroin overdose in the presence of alcohol. The toxicological data were also consistent with the protective effects of methadone in reducing rates of heroin overdose.